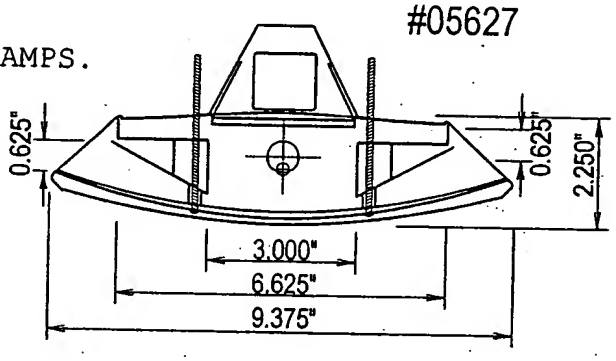
LTL LUMINAIRE TESTING LABORATORY, INC.

IES SUSTAINING MEMBER

905 Harrison Street · Allentown, PA 18103 · (610) 770-1044 · Fax (610) 770-8912 · www.LuminaireTesting.com

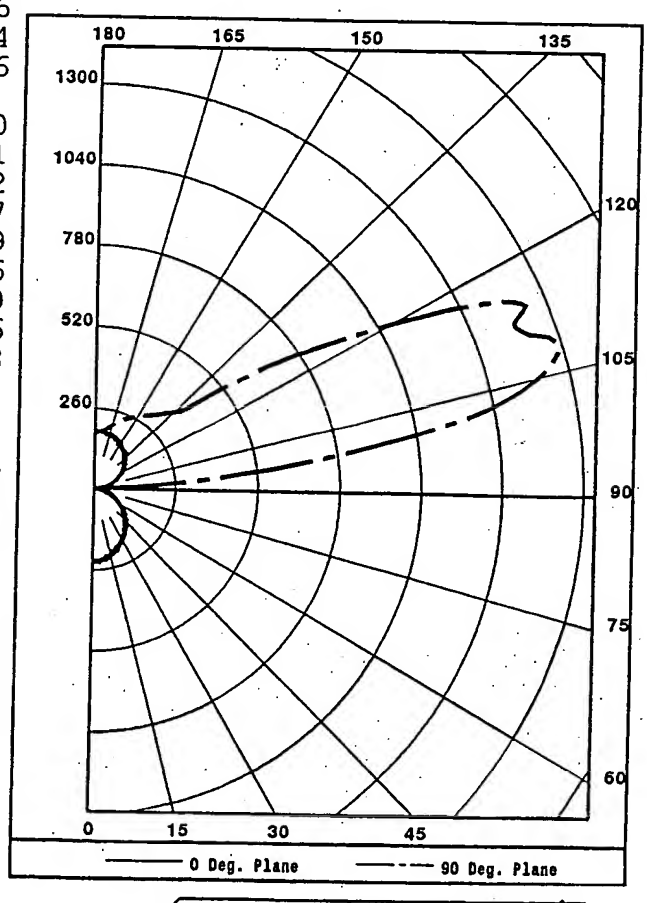
LTL NUMBER: 05627
DATE: 02-16-2001
PREPARED FOR: ADVANCED OPTICAL TECHNOLOGIES
CATALOG NUMBER: LINEAR FLUORESCENT UPLIGHT VERSION 3
LUMINAIRE: FORMED STEEL SUPPORT, WHITE INTERNAL REFLECTORS, TRANSLUCENT WHITE ACRYLIC LOWER ENCLOSURE, FORMED SPECULAR ALUMINUM REFLECTORS, OPEN TOP.
LAMP: ONE SYLVANIA FP54/841/HO RATED AT 4400 LUMENS.
BALLAST: ONE SYLVANIA QT1X54/120PHO
MOUNTING: PENDENT
LUMEN TO CANDELA RATIO USED = 9.18
TOTAL INPUT WATTS = 59.9 AT 120.0 VOLTS
THE 0 DEGREE PLANE IS PARALLEL WITH THE LAMPS.

#05627



CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	FLUX
0	233	233	233	233	233	
5	234	233	233	231	232	22
15	217	218	218	217	218	62
25	199	198	198	197	198	91
35	174	172	174	172	171	108
45	145	145	145	145	146	113
55	110	112	113	114	114	102
65	79	78	79	78	80	76
75	38	39	41	43	42	44
85	9	12	17	17	16	16
90	2	18	19	19	19	
95	19	396	368	323	313	360
105	52	356	1068	1393	1458	931
115	84	185	668	1271	1465	702
125	111	185	303	602	750	347
135	135	186	263	330	356	199
145	154	184	239	279	292	146
155	170	185	220	245	253	100
165	178	183	198	209	214	56
175	185	183	186	187	186	18
180	183	183	183	183	183	



ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0- 30	175	4.0	5.0
0- 40	283	6.4	8.1
0- 60	497	11.3	14.2
0- 90	633	14.4	18.1
90-120	1993	45.3	57.1
90-130	2340	53.2	67.0
90-150	2686	61.0	76.9
90-180	2859	65.0	81.9
0-180	3493	79.4	100.0

TOTAL LUMINAIRE EFFICIENCY: 79.4%

CIE TYPE:	SEMI-INDIRECT	
PLANE:	0-DEG	90-DEG
SPACING CRITERIA:	1.2	1.2

TESTED BY HERSCHEL SCHRECK
CHECKED BY MIKE GRATHER

THIS REPORT BASED ON LM-41 AND OTHER PERTINENT IES PROCEDURES.

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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD
EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	79	79	79	79	70	70	70	70	52	52	52	36	36	36	21	21	21	14
1	72	69	66	63	63	61	58	56	46	44	43	32	31	30	19	18	18	12
2	66	60	55	52	58	53	49	46	40	37	35	28	26	25	17	16	15	10
3	60	53	47	43	52	47	42	38	35	32	30	25	23	21	15	14	13	9
4	55	47	41	36	48	41	36	32	31	28	25	22	20	18	13	12	11	8
5	50	41	35	31	44	37	31	28	28	24	21	19	17	15	12	11	10	6
6	46	37	31	26	40	33	27	24	25	21	18	17	15	13	11	9	8	6
7	42	33	27	23	37	29	24	21	22	19	16	16	13	12	10	8	7	5
8	39	30	24	20	34	26	21	18	20	16	14	14	12	10	9	7	6	4
9	36	27	21	17	32	24	19	16	18	15	12	13	10	9	8	6	6	4
10	33	24	19	15	29	22	17	14	17	13	11	12	9	8	7	6	5	3

PLANE:	0-DEG	90-DEG
LUMINOUS LENGTH:	46.250	9.375
HEIGHT OF SIDE:	2.250	2.250

LUMINANCE IN CANDELA PER SQUARE METER

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
0	833.	833.	833.
45	716.	1069.	738.
55	663.	919.	710.
65	635.	742.	667.
75	481.	473.	415.
85	289.	264.	202.

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	0.0	22.5	45.0	67.5	90.0
0	233	233	233	233	233
5	234	233	233	231	232
10	226	225	226	225	225
15	217	218	218	217	218
20	207	209	209	207	208
25	199	198	198	197	198
30	184	185	185	184	185
35	174	172	174	172	171
40	160	160	160	160	159
45	145	145	145	145	146
50	129	129	129	130	131
55	110	112	113	114	114
60	93	95	95	94	95
65	79	78	79	78	80
70	58	58	60	61	61
75	38	39	41	43	42
80	24	25	26	27	26
85	9	12	17	17	16
90	2	18	19	19	19
95	19	396	368	323	313
100	34	530	960	1003	981
105	52	356	1068	1393	1458
110	70	207	992	1354	1500
115	84	185	668	1271	1465
120	98	181	433	889	1082
125	111	185	303	602	750
130	125	185	279	383	484
135	135	186	263	330	356
140	143	184	252	298	318
145	154	184	239	279	292
150	164	185	232	264	272
155	170	185	220	245	253
160	176	186	209	227	236
165	178	183	198	209	214
170	181	185	188	192	194
175	185	183	186	187	186
180	183	183	183	183	183

ZONAL LUMEN SUMMARY

0- 5	6.
5- 10	16.
10- 15	27.
15- 20	35.
20- 25	43.
25- 30	48.
30- 35	53.
35- 40	55.
40- 45	57.
45- 50	56.
50- 55	54.
55- 60	48.
60- 65	41.
65- 70	35.
70- 75	27.
75- 80	17.
80- 85	11.
85- 90	6.
90- 95	60.
95-100	300.
100-105	465.
105-110	467.
110-115	400.
115-120	302.
120-125	204.
125-130	143.
130-135	107.
135-140	92.
140-145	79.
145-150	67.
150-155	56.
155-160	44.
160-165	33.
165-170	23.
170-175	13.
175-180	4.

THIS TEST WAS CONDUCTED USING RELATIVE PHOTOMETRY TECHNIQUES ACCORDING TO STANDARD IESNA PROCEDURES. THE USER MUST THEREFORE USE CAUTION IN THE FOLLOWING SITUATIONS: 1) THIS TEST WAS PERFORMED USING A SPECIFIC BALLAST/LAMP COMBINATION. EXTRAPOLATION OF THESE DATA FOR OTHER BALLAST/LAMP COMBINATIONS MAY PRODUCE ERRONEOUS RESULTS. 2) ACCORDING TO IESNA PROCEDURES, THE BALLAST(S) AND LAMP(S) ARE PRESUMED TO PRODUCE 100% OF RATED OUTPUT. AN APPROPRIATE BALLAST FACTOR MUST BE APPLIED TO THE LUMEN OUTPUT RATINGS AND LUMINOUS INTENSITY VALUES GIVEN. 3) THIS TEST WAS CONDUCTED IN A CONTROLLED LABORATORY ENVIRONMENT WHERE THE AMBIENT TEMPERATURE WAS HELD AT 25°C ±1°C. FIELD PERFORMANCE MAY DIFFER PARTICULARLY IN REGARDS TO CHANGE IN LUMINOUS OUTPUT AS A RESULT OF DIFFERENCE IN AMBIENT TEMPERATURE AND METHOD OF MOUNTING THE LUMINAIRE.